

Amendments to the Specification

On page 2, replace the section titled "Brief Description of the Drawing" with the following:

BRIEF DESCRIPTION OF THE DRAWING

~~Fig. 1~~ The figure is a schematic of the laboratory setup, including a cross-section of the present invention, used to test the field emission cold cathode characteristics.

Replace the paragraph beginning on page 4, at line 21, with the following paragraph:

~~FIG. 1~~ The figure is a schematic of the laboratory setup, including a cross section of the present invention, used to test the field emission cold cathode characteristics. It consists of a vacuum vessel with a high voltage bushing, cathode mount, cathode and anode. The anode-cathode gap can be changed by moving the shaft upon which the anode is mounted. A sufficient negative voltage is applied to the cathode. An electric field as low as 0.9 kV/cm has been demonstrated to be sufficient to initiate electron flow. This is far less than the typical electric fields used in conventional vacuum tubes. Electrons are emitted from the cathode surface and accelerated through the anode-cathode gap and the electrons then impact the anode. The high voltage source may be a pulsed or continuous. The cathode can be employed in any general geometry from circular to spherical, cylindrical, or planar, or in any other complex shape. The anode-cathode gap can represent any interaction region or other region in which the electrons are used. The anode region can be any region or structure in which electrons are collected.